

Links

Stundenplan [html](#) [ical](#) [spluseins](#)

[Semester/Deutschlandticket](#)

[Ostfalia-Card](#) Abholung im [Rechenzentrum](#)

[Zusatzdokument](#)

In [1]: `%%latex`

```
\frac{x}{x+y}+\frac{y}{x-y}
```

$$\frac{x}{x+y} + \frac{y}{x-y}$$

In [9]: `%%latex`

```
\frac{(x)*(x-y)}{(x+y)*(x-y)}+\frac{(y)*(x+y)}{(x+y)*(x-y)}
```

$$\frac{(x)*(x-y)}{(x+y)*(x-y)} + \frac{(y)*(x+y)}{(x+y)*(x-y)}$$

In [11]: `%%latex`

```
\frac{x^2-xy}{x^2-y^2}+\frac{xy+y^2}{x^2-y^2}
```

$$\frac{x^2-xy}{x^2-y^2} + \frac{xy+y^2}{x^2-y^2}$$

In [13]: `%%latex`

```
\frac{(x^2-xy)+(xy+y^2)}{x^2-y^2}
```

$$\frac{(x^2-xy)+(xy+y^2)}{x^2-y^2}$$

In [14]: `%%latex`

```
\frac{x^2-xy+xy+y^2}{x^2-y^2}
```

$$\frac{x^2-xy+xy+y^2}{x^2-y^2}$$

In [15]: `%%latex`

```
\frac{x^2+y^2}{x^2-y^2}
```

$$\frac{x^2+y^2}{x^2-y^2}$$

In [19]: `%%latex`

```
4-\frac{6^2}{10^2}b^2
```

$$4 - \frac{6^2}{10^2} b^2$$

In [20]: `%%latex`
`$4-\frac{36}{100}b^2$`

$$4 - \frac{36}{100} b^2$$

In [21]: `%%latex`
`$4-0.36b^2$`

$$4 - 0.36b^2$$

In [23]: `%%latex`
`$(2+1.4b)^2$`

$$(2 + 1.4b)^2$$

In [20]: `%%latex`
`$$\sqrt{(x+y)}^2$`

$$\sqrt{(x + y)}^2$$

In [25]: `%%latex`
`$4+5.6b+1.96b^2$`

$$4 + 5.6b + 1.96b^2$$

In [26]: `%%latex`
`$(d-a)^2 = b - 12dg+36g^2$`

$$(d - a)^2 = b - 12dg + 36g^2$$

In [27]: `%%latex`
`$d^2-2ad+a^2 = b - 12dg+36g^2$`

$$d^2 - 2ad + a^2 = b - 12dg + 36g^2$$

In [29]: `%%latex`
`$a=6g$`

$$a = 6g$$

In [32]: `%%latex`
`$d^2-2(6g)d+(6g)^2 = b - 12dg+36g^2$`

$$d^2 - 2(6g)d + (6g)^2 = b - 12dg + 36g^2$$

In [33]: `%%latex`
`$d^2-12gd+36g^2 = b - 12dg+36g^2$`

$$d^2 - 12gd + 36g^2 = b - 12dg + 36g^2$$

In [9]: `%%latex`
`$5*(x+y+z)-7(x-y+z)-8(x+y-z)$`

```
$=5*x+5*y+5*z-7x+(-7)(-y)+(-7)z-8x-8y-8*(-z)$
$=5*x+5*y+5*z-7x+7y-7z-8x-8y+8z$
$=-10x+4y+6z$
```

$$\begin{aligned}
 & 5 * (x + y + z) - 7(x - y + z) - 8(x + y - z) \\
 &= 5 * x + 5 * y + 5 * z - 7x + (-7)(-y) + (-7)z - 8x - 8y - 8 * (-z) \\
 &= 5 * x + 5 * y + 5 * z - 7x + 7y - 7z - 8x - 8y + 8z = -10x + 4y + 6z
 \end{aligned}$$

In [12]: %%latex

```
$25m + (13n - 8z) + (5z + 7m) - (11m + 5n) - (13z-17n)$
$= 25m + 13n - 8z + 5z + 7m - 11m - 5n - 13z+17n$
$= 21m + 25n - 16z$
```

$$\begin{aligned}
 & 25m + (13n - 8z) + (5z + 7m) - (11m + 5n) - (13z - 17n) \\
 &= 25m + 13n - 8z + 5z + 7m - 11m - 5n - 13z + 17n = 21m + 25n - 16z
 \end{aligned}$$

In [16]: %%latex

```
$69p + [13q - (17p+11q)]-[11p-(13p-17q)]$
$= 69p + [13q - 17p-11q]-[11p-13p+17q]$
$= 69p + [2q - 17p]-[-2p+17q]$
$= 69p + 2q - 17p+2p-17q$
$= 54p -15q$
```

$$\begin{aligned}
 & 69p + [13q - (17p + 11q)] - [11p - (13p - 17q)] = 69p + [13q - 17p - 11q] - [11p - 13p + 17q] \\
 &= 69p + [2q - 17p] - [-2p + 17q] = 69p + 2q - 17p + 2p - 17q = 54p - 15q
 \end{aligned}$$

In [21]: %%latex

```
$(3a+5b)-\{11a-[5c-(9b-8a)]+13b\}$
$=3a+5b-\{11a-[5c-9b+8a]+13b\}$
$=3a+5b-\{11a-5c+9b-8a+13b\}$
$=3a+5b-11a+5c-9b+8a-13b$
$=-17b+5b$
```

$$\begin{aligned}
 & (3a + 5b) - \{11a - [5c - (9b - 8a)] + 13b\} = 3a + 5b - \{11a - [5c - 9b + 8a] + 13b\} \\
 &= 3a + 5b - \{11a - 5c + 9b - 8a + 13b\} = 3a + 5b - 11a + 5c - 9b + 8a - 13b = -17b + 5b
 \end{aligned}$$

In [3]: %%latex

```
$(a-b)*(2x+3y)-(a-b)(x-y)+(a-b)(x-3y)$
```

```
$(a-b)*((2x+3y)-(x-y)+(x-3y))$
$(a-b)*(2x+3y-x+y+x-3y)$
$(a-b)*(2x+y)$
```

$$\begin{aligned}
 & (a-b) * (2x+3y) - (a-b)(x-y) + (a-b)(x-3y) \\
 &= (a-b) * ((2x+3y) - (x-y) + (x-3y)) = (a-b) * (2x+3y-x+y+x-3y) \\
 &= (a-b) * (2x+y)
 \end{aligned}$$

In [4]: `%%latex`

```
$b^2(b-c)+c^2(c-b)$
$b=b^2(b-c)+c^2(-1(-c+b))$
$b=b^2(b-c)-c^2(b-c)$
$=(b^2-c^2)(b-c)$
```

$$b^2(b-c) + c^2(c-b) = b^2(b-c) + c^2(-1(-c+b)) = b^2(b-c) - c^2(b-c) = (b^2 - c^2)(b-c)$$

In []: